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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,775	01/12/2004	Michael Ronald Miller	140525	1774
23413	7590	12/08/2005	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			RAMIREZ, JOHN FERNANDO	
			ART UNIT	PAPER NUMBER
			3737	

DATE MAILED: 12/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/707,775

Applicant(s)

MILLER ET AL.

Examiner

John F. Ramirez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 01/12/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION*****Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

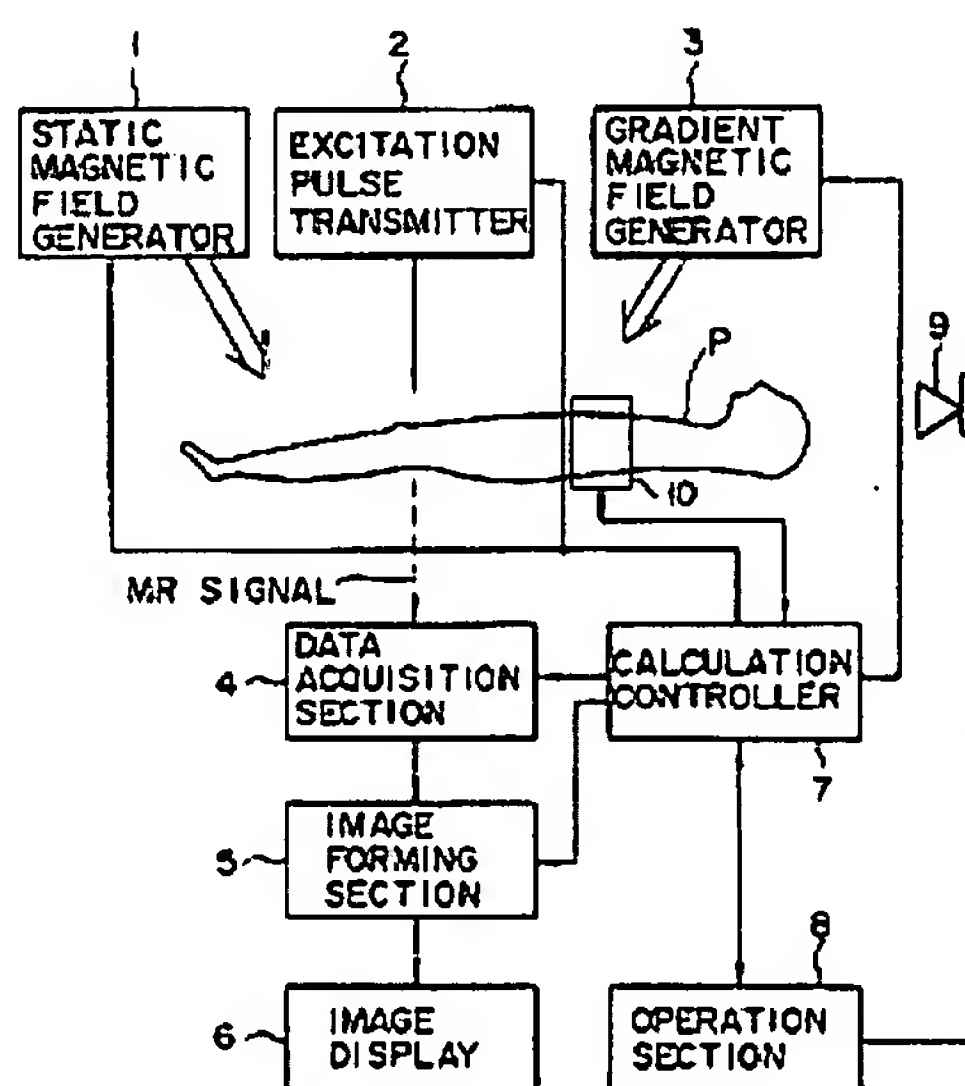
A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 6, 9, 12, 14, 15, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. (US 4,878,499).

**F I G. 3**

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Suzuki et al. discloses a respiratory measurement system, comprising: a strapping device that is configured to be placed across a chest of a person (10, Figure 3), the strapping device being substantially transparent to x-rays, and, a sensor operatively coupled to the strapping device generating a measurement signal indicative of a displacement of the strapping device during respiration by the person (col. 4, lines 35-57), generating a visual indication of respiratory function of the person based on the signal (col. 5, line 15 – col. 6, line 35), wherein the sensor comprises a linear position encoder (col. 6, lines 4-18), a medical diagnostic system (abstract), comprising: a tabletop (Figures 1 and 3), an X-ray device disposed proximate the tabletop (col. 4, lines 17-34), a strapping device that is configured to be placed across a chest of a person lying on the tabletop (10, Figure 3), the strapping device being substantially transparent to x-rays; and, a sensor operatively coupled to the strapping device generating a measurement signal indicative of a displacement of the strapping device during respiration by the person, the sensor being outside a scanning area of the X-ray device (col. 4, lines 35-57).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 3-5, 7, 8, 10, 11, 13, 16-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US 4,878,499) in view of Watson et al. (US 4,308,872).

In reference to claims 3-5, 8, 10, 11, 13, and 16-18 Suzuki et al., teaches all the limitations of the claimed subject matter except for mentioning specifically the system wherein respiratory function comprises a lung volume level, wherein the strapping device comprises a polypropylene string, further comprising a plastic tube configured to be placed across the chest of the person, and the strapping device being disposed in the plastic tube.

However, the system wherein respiratory function comprises a lung volume level, wherein the strapping device comprises a polypropylene string, further comprising a plastic tube configured to be placed across the chest of the person, and the strapping device being disposed in the plastic tube are conventional in the art as evidenced by the teachings of Watson et al. (US 4,308,872).

The Watson et al. patent teaches a system wherein respiratory function comprises a lung volume level, wherein the strapping device comprises a polypropylene string, further comprising a plastic tube configured to be placed across the chest of the person, and the strapping device being disposed in the plastic tube.

Based on the above observations, for a person of ordinary skill in the art, modifying the method disclosed by Suzuki et al., with the above discussed enhancements would have been considered obvious because such modifications would have provided clinically more accurate data on breathing volumes derived from

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continuous measurements of the cross sectional areas of the upper chest and the lower abdomen.

Claims 7, 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US 4,878,499) in view of Applicant's admitted prior art (AAPA).

Suzuki et al., teaches all the limitations of the claimed subject matter except for mentioning specifically a system that has a tabletop having a securing device and a pulley coupled thereto, wherein a first portion of the strapping device extends between securing device the securing device and the pulley, the securing device and the pulley being positioned on the tabletop to allow the chest of the person to be disposed between the securing device and the pulley, and wherein a second portion of the strapping device extends from the pulley to the sensor.

However, a system that has a tabletop having a securing device and a pulley coupled thereto, wherein a first portion of the strapping device extends between securing device the securing device and the pulley, the securing device and the pulley being positioned on the tabletop to allow the chest of the person to be disposed between the securing device and the pulley, and wherein a second portion of the strapping device extends from the pulley to the sensor are conventional in the art as evidenced by the teachings of US application 10/707775.

The US application 10/707775 teaches a system that has a tabletop having a securing device and a pulley coupled thereto, wherein a first portion of the strapping device extends between securing device the securing device and the pulley, the securing device and the pulley being positioned on the tabletop to allow the chest of the

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person to be disposed between the securing device and the pulley, and wherein a second portion of the strapping device extends from the pulley to the sensor. (Page 5, paragraph [0016]).

Based on the above observations, for a person of ordinary skill in the art, modifying the method disclosed by Suzuki et al., with the above discussed enhancements would have been considered obvious because such modifications would have provided clinically more accurate data on breathing volumes derived from continuous measurements of the cross sectional areas of the upper chest and the lower abdomen.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John F. Ramirez whose telephone number is (571) 272-8685. The examiner can normally be reached on (Mon-Fri) 7:30 - 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JFR  
11/29/05

Brian Caster  
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SPE 3737